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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,134	07/31/2003	Hui-Chu Lin Lin	3304.2.75	2470

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EXAMINER

FULLER, ERIC B

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,134

Applicant(s)

LIN, HUI-CHU

Examiner

Eric B. Fuller

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 and 16 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Specifically, the claims have been amended such that they require the introduced gas to be non-reactive. The specification lacks support for this limitation. The paragraphs cited for support by the applicant only state that the gas dilutes contaminants and may be molecular argon, nitrogen, or hydrogen. This would not convey to one of ordinary skill in the art that the gas is "non-reactive", particularly in view of the prior art cited in the previous Office Action in which molecular argon, nitrogen, or hydrogen is used to dilute contaminants, but the gas is still considered reactive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1762

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ameen et al. (US 6,635,569) in view of Wakabayashi et al. (US 2003/0165620 A1).

Ameen teaches the process as claimed at column 5, lines 1-30, column 9, lines 1-34, and column 10, lines 55-60, wherein the chamber is cleaned with NF_3 , a plasma of Ar and H_2 is used to remove contaminants and stabilize the temperature of the showerhead for 1-10 minutes, a pre-coat of Ti is deposited on the reaction chamber without a substrate in the chamber. The reference is silent to introducing a non-reactive gas into the deposition chamber after the pre-coat film has been deposited. However, Wakabayashi teaches that it is conventionally known to flow inert gases such as molecular nitrogen after pre-coating in order to stabilize the temperature distribution of the chamber. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize an inert gas in the process taught by Ameen. By doing so, the temperature in the process chamber is stabilized.

As to the dependent claims, to use other inert gases would have been equally obvious, with the expectation of achieving similar results. Additionally, feeding inert gases into the chamber inherently dilutes contaminants, thus reading on stabilizing the contaminate concentration.

Claims 1-10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta et al. (US 5,824,375) in view of Wakabayashi et al. (US 2003/0165620 A1).

Gupta teaches the process as claimed in column 8, line 37 to column 9, line 60, wherein the chamber is cleaned with NF_3 , a plasma of He and Ar is introduced into the chamber which stabilizes and removes contaminants, and a pre-coat silica film is deposited on the reactor without a substrate therein. The reference is silent to introducing a non-reactive gas into the deposition chamber after the pre-coat film has been deposited. However, Wakabayashi teaches that it is conventionally known to flow inert gases such as molecular nitrogen after pre-coating in order to stabilize the temperature distribution of the chamber. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize an inert gas in the process taught by Gupta. By doing so, the temperature in the process chamber is stabilized.

As to the dependent claims, to use other inert gases would have been equally obvious, with the expectation of achieving similar results. Additionally, feeding inert gases into the chamber inherently dilutes contaminants, thus reading on stabilizing the contaminate concentration.

Response to Arguments

Applicant argues that the cited prior art of the previous Office Action fails to teach the claims as they have been amended. Examiner agrees and has withdrawn the rejections of the previous Office Action. Applicant's arguments are moot in view of the new grounds of rejection.

Conclusion


Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

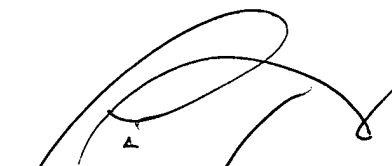
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks, can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EBF



TIMOTHY MEEKS
SUPERVISORY PATENT EXAMINER